

BRUNSWICK NAS ME

Latitude = 43.88 N

WMO No. 743920

Longitude = 69.93 W

Elevation = 75 feet

Period of Record = 1967 to 1996

Average Pressure = 29.86 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	93	75	104	8.1	S
0.4% Occurrence	86	71	89	8.2	S
1.0% Occurrence	83	69	85	8.0	S
2.0% Occurrence	80	67	81	8.3	S
Mean Daily Range	18	-	-	-	-
97.5% Occurrence	7	5	4	6.0	N
99.0% Occurrence	1	0	3	4.9	N
99.6% Occurrence	-4	-5	2	4.9	N
Median of Extreme Lows	-14	-14	1	2.5	NW
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	79	88	131	8.0	S
0.4% Occurrence	74	83	111	7.2	S
1.0% Occurrence	72	81	104	7.1	S
2.0% Occurrence	70	77	99	6.8	S
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	136	84	0.90	5.2	S
0.4% Occurrence	114	81	0.77	6.6	S
1.0% Occurrence	107	76	0.72	5.6	S
2.0% Occurrence	99	74	0.67	5.9	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		3	196	61	427

Other Site Data

Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
5	2.3	100	0.6 + 0.2
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
48.4	86	60	75

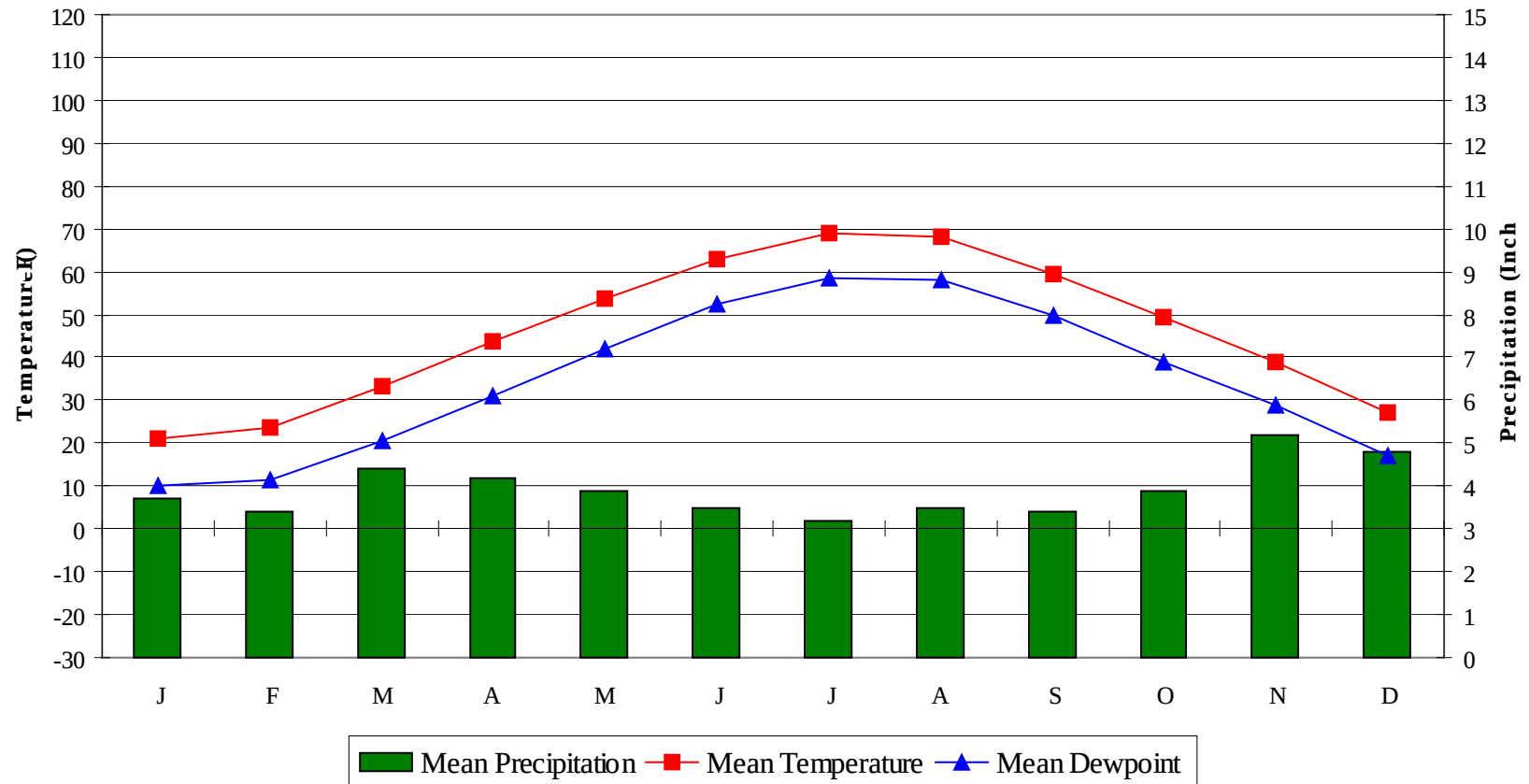
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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Average Annual Climate

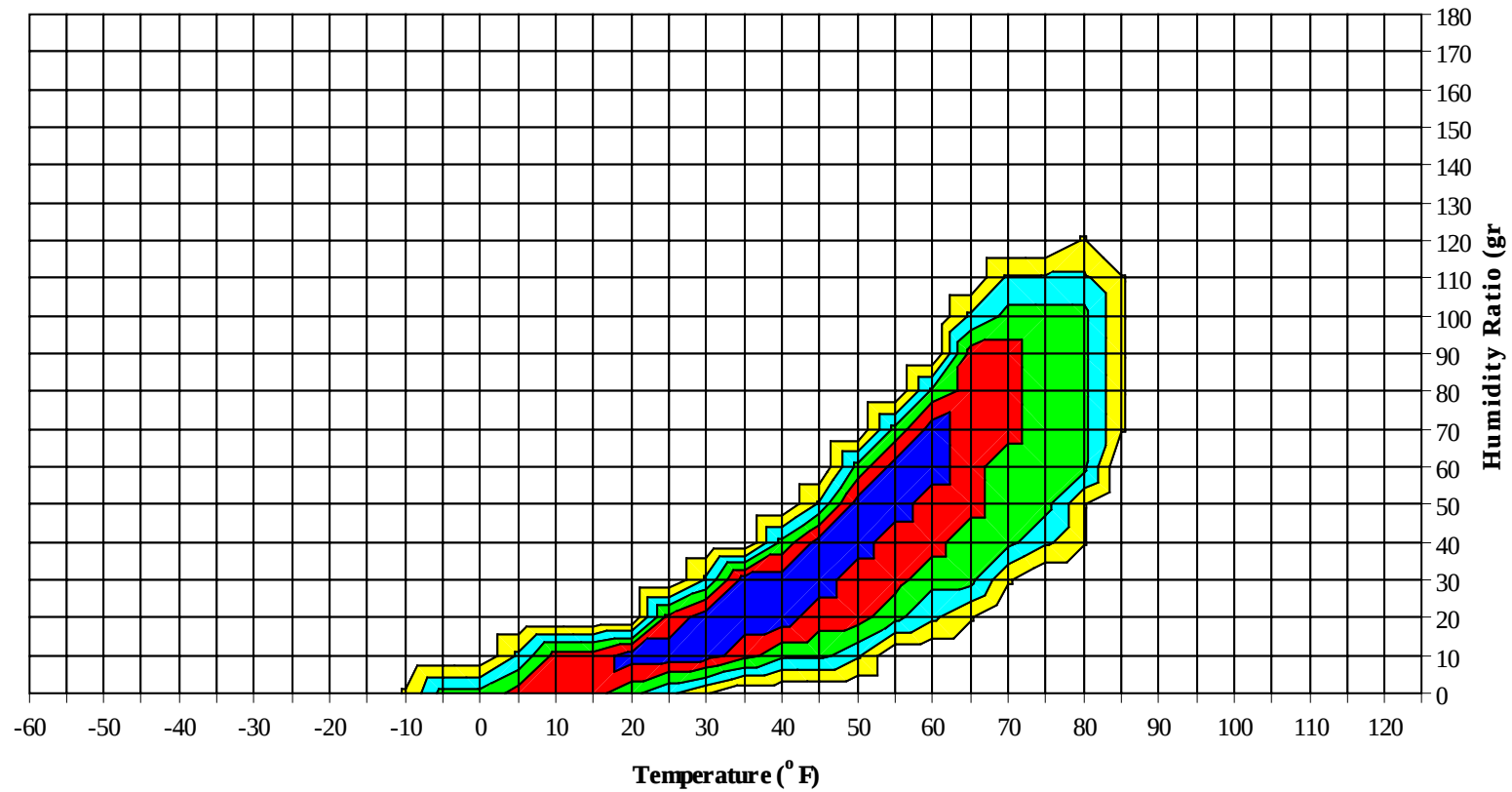


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WMO No. 743920

Long Term Psychrometric Summary

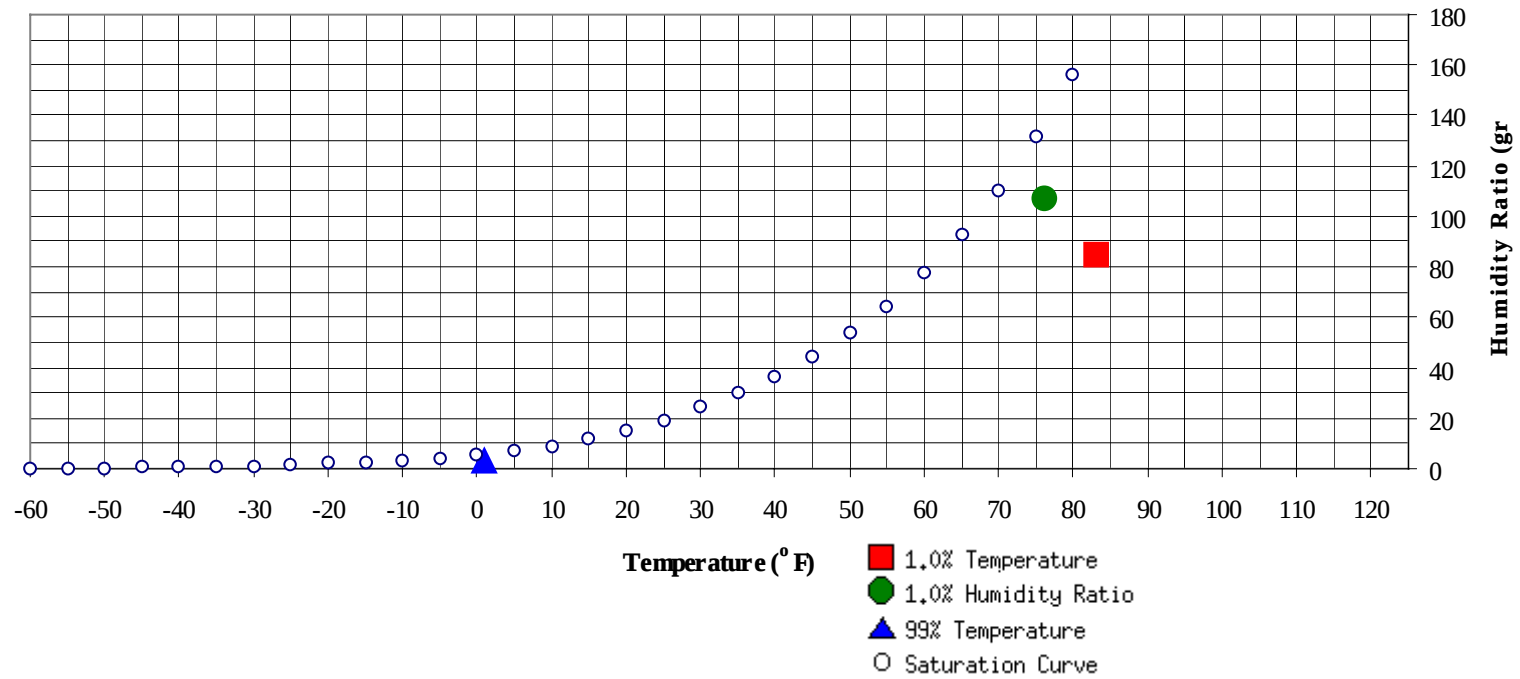


- 50% of all observations
- 80% of all observations
- 95% of all observations
- 97.5% of all observations
- 99% of all observations

BRUNSWICK NAS

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Psychrometric Summary of Peak Design Values

	(°F)	MCHR	Enthalpy	1.0% Humidity	(gr/lb)	MCDB	MCWB	MC Dewpt	Enthalpy
		(gr/lb)	(btu/lb)			(°F)	(°F)	(°F)	(btu/lb)
99% Dry Bulb	1	3	0.7	Ratio	107.1	76	71.2	69.1	35.0

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	83	85	69.1	33.3

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WMO No. 743920

Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1967 to 1996

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79												0	0	0	55.0
70 / 74											0	0	0	0	63.5
65 / 69											0	1	0	1	53.0
60 / 64		0		0	50.0						0	2	0	2	49.8
55 / 59		0	0	0	50.3		1		1	47.4	0	5	1	6	46.6
50 / 54	1	1	1	3	49.0	0	2	0	2	45.0	0	13	3	17	43.0
45 / 49	2	5	4	11	43.8	1	7	3	11	42.3	5	33	13	51	40.6
40 / 44	4	17	7	28	38.2	8	23	11	42	37.5	16	51	35	103	37.1
35 / 39	18	31	24	73	33.8	17	34	27	78	33.0	50	61	66	176	33.2
30 / 34	28	36	33	98	29.0	23	38	34	95	28.4	57	39	57	153	28.7
25 / 29	28	42	35	105	23.8	28	40	38	106	23.6	42	22	36	100	23.6
20 / 24	26	34	34	93	19.2	30	32	35	96	19.0	29	12	19	60	19.0
15 / 19	34	32	38	104	14.7	31	23	28	82	14.5	20	6	12	39	14.4
10 / 14	33	25	29	87	10.0	29	14	22	65	9.9	14	2	5	21	9.9
5 / 9	30	15	22	68	5.4	25	7	15	47	5.3	8	0	2	10	5.5
0 / 4	20	5	11	36	0.7	16	2	6	24	0.7	4	0	0	4	1.0
-5 / -1	12	2	6	20	-3.5	10	1	3	14	-3.7	1			1	-3.4
-10 / -6	7	1	3	10	-7.7	5	0	1	6	-7.4	0			0	-6.4
-15 / -11	4	0	1	6	-12.3	1		0	1	-12.2					
-20 / -16	2	0	0	2	-17.3	0			0	-16.3					
-25 / -21	0			0	-21.4										
-30 / -26	0			0	-26.4										

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

BRUNSWICK NAS

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WMO No. 743920

Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99												0	0	0	77.0
90 / 94							0		0	68.7		2	0	2	72.2
85 / 89							2	0	2	66.1	0	7	1	8	70.2
80 / 84		0		0	62.8	0	4	1	4	64.8	1	19	3	22	66.9
75 / 79	0	1	0	1	58.1	0	9	1	11	62.4	3	36	8	48	63.9
70 / 74	0	2	0	3	56.1	1	19	4	25	59.0	8	54	22	84	61.5
65 / 69	0	7	1	8	53.7	4	35	10	49	55.6	27	50	44	120	59.6
60 / 64	0	18	4	22	50.2	11	55	25	91	52.8	56	38	67	161	57.2
55 / 59	3	32	9	44	47.2	34	56	49	138	50.6	75	24	60	159	53.9
50 / 54	13	49	27	88	44.6	62	40	69	171	47.6	49	9	29	87	49.7
45 / 49	34	59	55	148	41.6	68	22	61	151	43.6	17	1	6	24	44.9
40 / 44	63	42	67	173	38.0	45	5	24	74	39.7	4		0	4	39.8
35 / 39	58	19	49	126	33.8	19	0	4	22	34.4	1			1	35.9
30 / 34	45	6	22	74	29.3	5		0	5	29.9					
25 / 29	19	1	5	25	24.3	0			0	26.3					
20 / 24	4	1	1	6	18.7										
15 / 19	2	0	0	2	14.6										
10 / 14	0			0	12.0										
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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WMO No. 743920

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104							0		0	78.8					
95 / 99		0	0	0	77.3		0	0	0	80.0					
90 / 94		4	0	5	75.0		3	0	3	73.6		0		0	78.0
85 / 89	0	17	2	20	71.5	0	15	1	16	72.1		2	0	2	72.3
80 / 84	1	47	8	57	68.6	0	40	6	46	69.1		7	0	8	68.9
75 / 79	6	65	21	92	66.1	4	64	17	86	66.4	0	19	3	22	65.6
70 / 74	28	58	53	140	64.6	25	67	53	145	64.7	3	36	10	49	62.5
65 / 69	72	37	85	194	62.6	70	41	85	196	62.7	18	61	31	110	59.8
60 / 64	86	16	61	163	59.1	78	14	58	150	58.7	46	65	62	174	56.8
55 / 59	40	1	16	57	54.4	42	3	20	64	53.7	59	36	69	164	53.1
50 / 54	12	0	2	14	49.3	21	1	6	29	49.4	49	10	38	98	48.8
45 / 49	2		0	2	45.0	6		1	7	44.7	34	2	19	55	44.0
40 / 44	0			0	41.0	1		0	1	40.9	22	0	6	28	39.6
35 / 39						0			0	38.0	8		1	9	35.3
30 / 34											1		0	1	31.0
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															
0 / 4															
-5 / -1															
-10 / -6															
-15 / -11															
-20 / -16															
-25 / -21															
-30 / -26															

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BRUNSWICK NAS

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WMO No. 743920

Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89															
80 / 84		0		0	64.0										
75 / 79		2		2	63.6										
70 / 74	0	6	0	6	60.3		1		1	59.1					
65 / 69	1	19	2	22	57.5		2		2	56.3		0		0	57.7
60 / 64	8	44	18	69	55.6	1	5	1	7	54.1		0		0	53.0
55 / 59	29	55	42	127	51.9	6	15	7	28	52.0	0	2	0	2	49.6
50 / 54	40	60	51	151	47.2	16	34	22	71	47.8	3	5	3	11	48.7
45 / 49	48	39	53	140	42.6	23	51	33	107	42.7	5	15	7	27	43.4
40 / 44	46	16	42	103	38.2	34	50	41	124	37.8	14	25	17	56	38.2
35 / 39	38	5	25	68	34.0	43	43	49	136	33.2	26	47	34	107	33.4
30 / 34	27	1	12	40	29.8	51	24	45	120	28.9	41	45	49	135	28.9
25 / 29	11		3	14	25.2	39	10	28	77	24.5	42	43	44	129	24.2
20 / 24	1		0	1	20.0	19	3	10	31	19.8	34	28	32	93	19.5
15 / 19	0			0	15.8	7	1	4	12	15.7	26	18	25	69	14.9
10 / 14						3	0	1	3	11.2	22	12	19	53	10.3
5 / 9						0			0	7.1	16	5	11	33	5.7
0 / 4						0			0	0.5	11	2	5	18	0.9
-5 / -1											4	1	1	6	-3.4
-10 / -6											3	0	1	4	-8.0
-15 / -11											1	0	0	1	-12.2
-20 / -16											0		0	0	-16.8
-25 / -21											0			0	-20.0
-30 / -26															

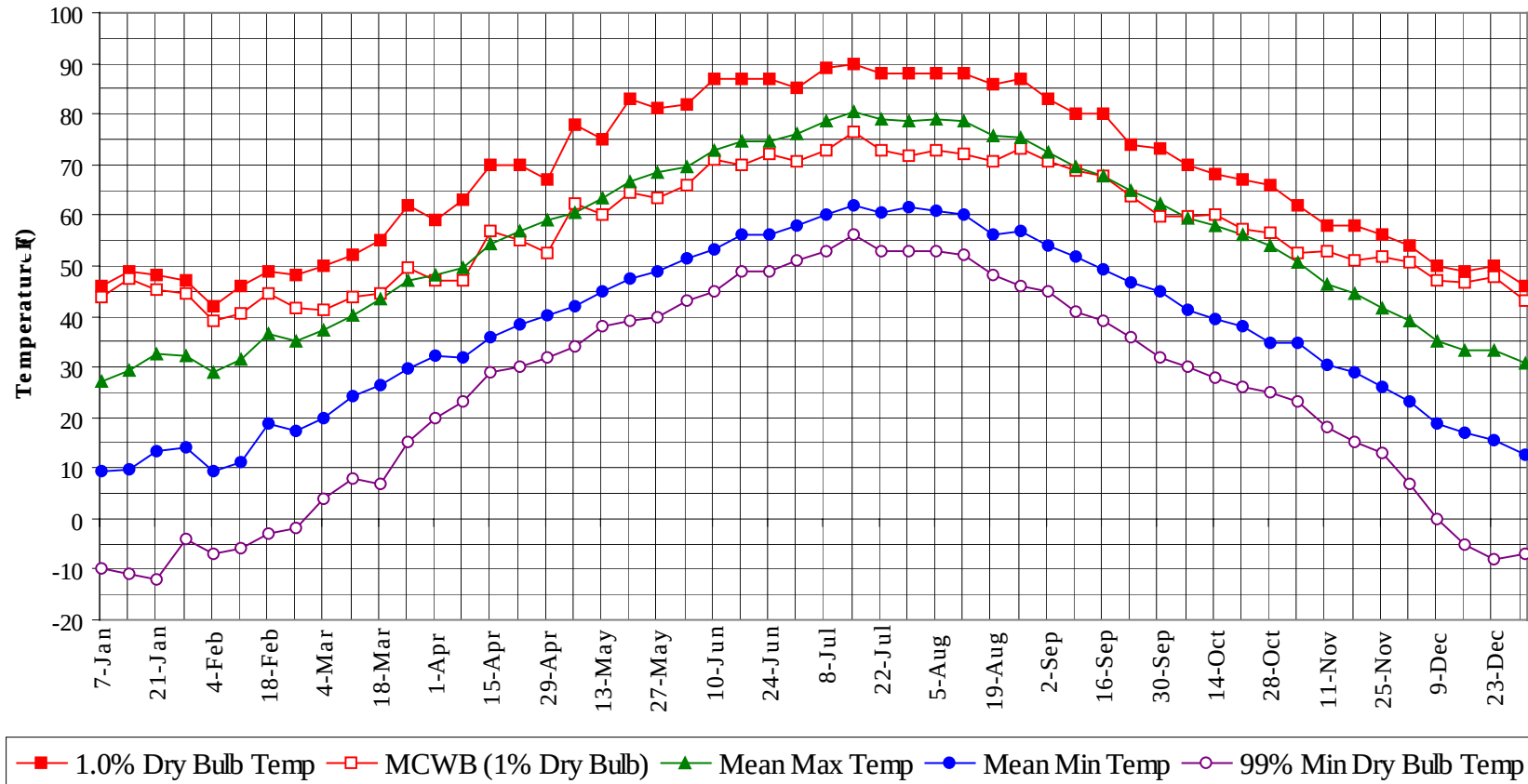
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BRUNSWICK NAS ME WMO No. 743920
Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)
Period of Record = 1967 to 1996

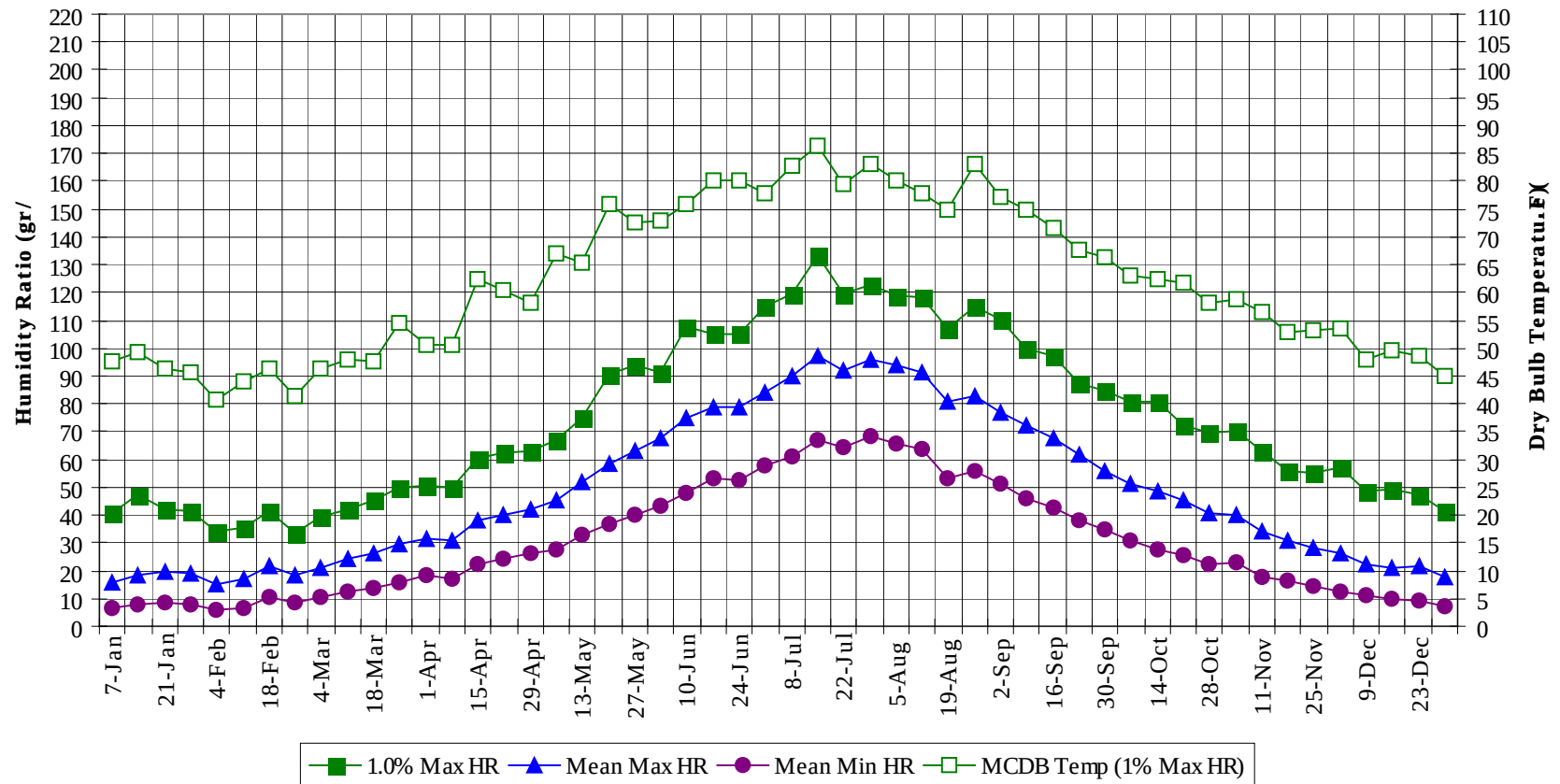
Annual Totals						
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	
	01 To 08	09 To 16	17 To 00			
100 / 104	0			0	78.8	
95 / 99	1			0	1	77.9
90 / 94	10			1	10	73.9
85 / 89	0	43	4	47	71.3	
80 / 84	3	117	18	138	68.4	
75 / 79	14	197	51	262	65.5	
70 / 74	66	244	143	453	63.4	
65 / 69	191	253	259	702	60.9	
60 / 64	286	257	297	840	56.9	
55 / 59	287	229	272	788	52.3	
50 / 54	267	223	250	740	47.6	
45 / 49	245	234	253	732	42.8	
40 / 44	254	229	250	734	38.1	
35 / 39	276	241	279	796	33.5	
30 / 34	279	189	254	722	28.9	
25 / 29	209	159	190	558	24.0	
20 / 24	142	109	131	382	19.2	
15 / 19	121	81	107	310	14.7	
10 / 14	101	53	77	231	10.0	
5 / 9	81	27	50	158	5.4	
0 / 4	51	10	22	83	0.8	
-5 / -1	27	4	10	41	-3.6	
-10 / -6	15	2	4	20	-7.7	
-15 / -11	6	0	1	8	-12.3	
-20 / -16	2	0	0	3	-17.1	
-25 / -21	1			1	-21.2	
-30 / -26	0			0	-26.4	

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Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



BRUNSWICK NAS**ME****WMO No. 743920****Long Term Dry Bulb Temperature and Humidity Summary**

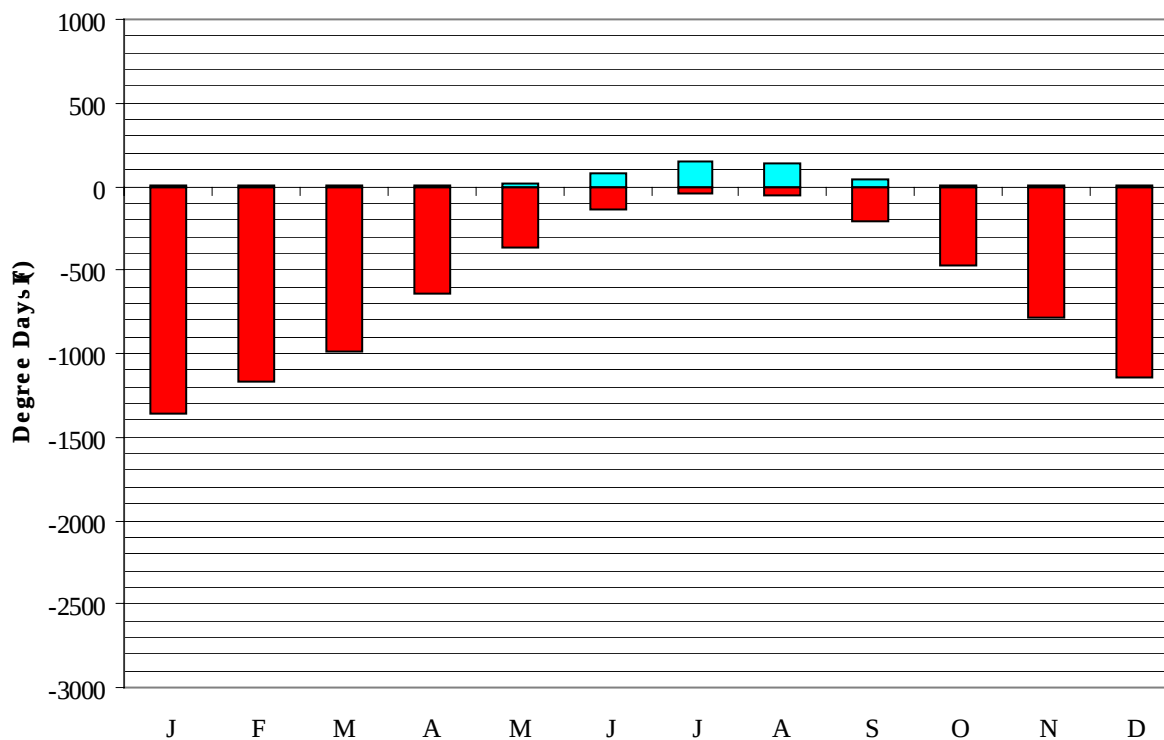
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	46.0	43.7	27.1	9.5	-10.0	40.6	47.5	15.6	6.7
14-Jan	49.0	47.5	29.4	9.9	-11.0	47.6	49.1	18.1	7.8
21-Jan	48.0	45.3	32.4	13.2	-12.0	42.0	46.3	19.8	8.3
28-Jan	47.0	44.4	32.2	13.9	-4.0	41.3	45.8	19.2	7.9
4-Feb	42.0	39.2	28.9	9.4	-7.0	34.3	40.8	14.9	6.1
11-Feb	46.0	40.6	31.5	11.3	-6.0	35.7	44.0	17.0	6.9
18-Feb	49.0	44.5	36.6	18.6	-3.0	41.3	46.3	21.8	10.7
25-Feb	48.0	41.6	35.1	17.2	-2.0	33.6	41.5	18.6	8.5
4-Mar	50.0	41.5	37.4	20.0	4.0	39.2	46.2	21.3	10.3
11-Mar	52.0	43.7	40.1	24.3	8.0	42.0	47.8	24.6	12.7
18-Mar	55.0	44.7	43.3	26.3	7.0	45.5	47.7	26.0	13.7
25-Mar	62.0	49.6	47.1	29.6	15.0	49.7	54.5	29.5	15.5
1-Apr	59.0	47.1	48.1	32.1	20.0	50.4	50.6	31.3	18.2
8-Apr	63.0	47.3	49.7	32.0	23.0	49.7	50.7	30.6	17.1
15-Apr	70.0	57.0	54.4	35.8	29.0	60.2	62.3	37.9	22.1
22-Apr	70.0	55.1	57.0	38.5	30.0	62.3	60.3	39.8	24.4
29-Apr	67.0	52.3	59.1	40.3	32.0	63.0	58.2	42.2	26.2
6-May	78.0	62.4	60.4	42.0	34.0	67.2	66.9	45.6	27.8
13-May	75.0	60.0	63.6	44.9	38.0	74.9	65.4	51.8	32.6
20-May	83.0	64.4	66.6	47.5	39.0	90.3	75.9	58.2	36.8
27-May	81.0	63.5	68.5	48.9	40.0	93.8	72.6	63.2	40.0
3-Jun	82.0	65.8	69.4	51.3	43.0	91.0	72.9	67.5	43.2
10-Jun	87.0	70.9	73.0	53.4	45.0	107.8	75.9	74.8	48.0
17-Jun	87.0	70.1	74.5	56.0	49.0	105.0	80.0	79.0	53.1
24-Jun	87.0	72.0	74.7	56.1	49.0	105.0	80.2	78.7	52.6
1-Jul	85.0	70.7	76.2	58.1	51.0	114.8	77.8	83.8	57.5
8-Jul	89.0	72.7	78.5	60.1	53.0	119.7	82.7	89.7	61.2
15-Jul	90.0	76.4	80.3	61.8	56.0	133.0	86.2	97.3	67.2
22-Jul	88.0	72.6	78.9	60.7	53.0	119.7	79.4	91.7	64.2
29-Jul	88.0	71.8	78.7	61.5	53.0	122.5	83.1	95.8	68.6
5-Aug	88.0	72.9	78.8	60.8	53.0	119.0	80.0	94.2	66.0
12-Aug	88.0	72.1	78.6	60.1	52.0	118.3	77.8	91.0	63.8
19-Aug	86.0	70.8	75.9	56.2	48.0	107.1	75.0	80.9	53.5
26-Aug	87.0	73.2	75.4	56.9	46.0	114.8	83.1	83.0	56.0
2-Sep	83.0	70.5	72.4	54.1	45.0	110.6	77.1	76.5	51.0
9-Sep	80.0	69.0	69.5	51.6	41.0	100.1	74.8	72.1	46.1
16-Sep	80.0	67.7	67.7	49.3	39.0	97.3	71.6	67.4	42.8
23-Sep	74.0	63.7	64.8	46.7	36.0	87.5	67.6	61.6	37.9
30-Sep	73.0	59.8	62.2	44.8	32.0	84.7	66.5	55.8	34.8
7-Oct	70.0	59.6	59.5	41.2	30.0	80.5	63.0	51.1	30.8
14-Oct	68.0	59.9	58.0	39.6	28.0	80.5	62.3	48.8	27.3
21-Oct	67.0	57.3	56.1	37.8	26.0	72.1	61.6	45.6	25.5
28-Oct	66.0	56.5	54.0	34.9	25.0	69.3	58.2	40.7	22.3
4-Nov	62.0	52.4	50.6	34.9	23.0	70.0	58.7	40.2	22.7
11-Nov	58.0	53.0	46.5	30.6	18.0	63.0	56.4	34.3	17.9
18-Nov	58.0	51.2	44.4	28.8	15.0	56.0	52.8	31.1	16.7
25-Nov	56.0	51.9	41.5	26.1	13.0	55.3	53.1	28.5	14.5
2-Dec	54.0	50.8	39.2	23.3	7.0	57.4	53.6	26.2	12.7
9-Dec	50.0	47.3	35.1	18.9	0.0	48.3	48.0	22.6	11.1
16-Dec	49.0	46.7	33.3	17.2	-5.0	49.0	49.6	21.3	10.0
23-Dec	50.0	47.7	33.3	15.5	-8.0	47.6	48.6	21.4	9.5
31-Dec	46.0	43.2	30.7	12.5	-7.0	41.3	45.1	17.7	7.3

BRUNSWICK NAS

ME

WMO No. 743920

Degree Days, Heating and Cooling
(Base 65°F)



■ Mean Cooling Degree Days ■ Mean Heating Degree Days

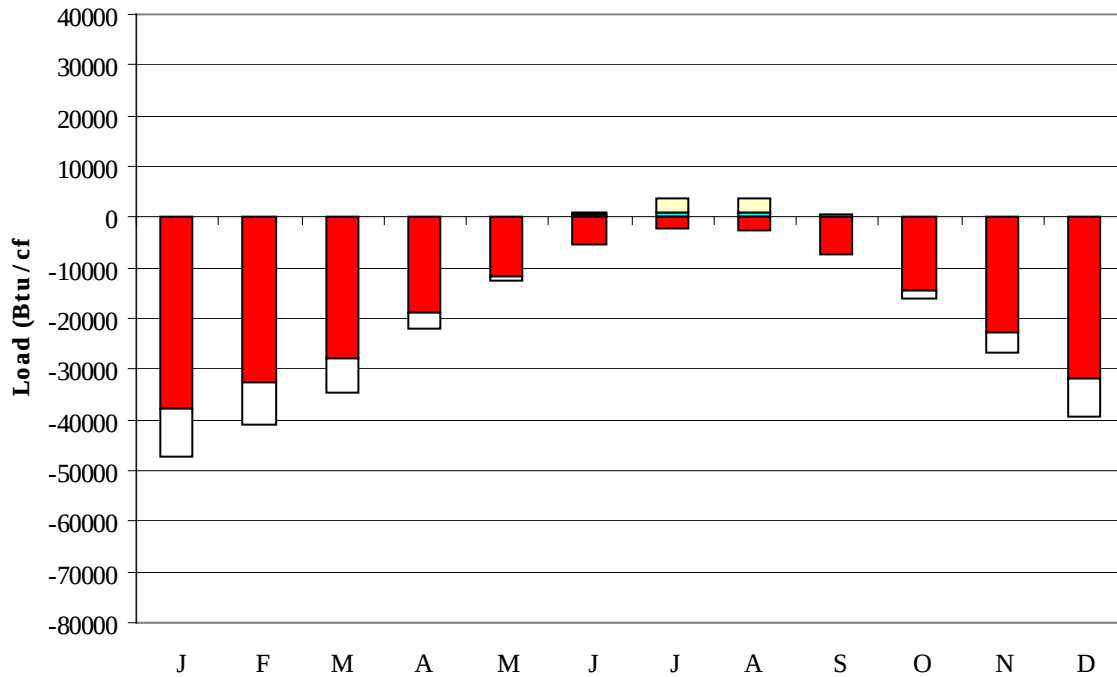
	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	1362
FEB	0	1171
MAR	0	990
APR	2	643
MAY	19	365
JUN	75	139
JUL	152	44
AUG	139	58
SEP	37	207
OCT	4	478
NOV	0	783
DEC	0	1138
ANN	428	7378

BRUNSWICK NAS

ME

WMO No. 743920

Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



■ Average Sensible Cooling Load	■ Average Sensible Heating Load
■ Average Latent Cooling (Drying) Load	■ Average Latent Heating (Humidifying) Load

	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-37719	0	-9323
FEB	0	-32550	0	-8311
MAR	0	-28052	1	-6453
APR	4	-18983	0	-3058
MAY	76	-11661	70	-728
JUN	381	-5200	622	-31
JUL	912	-2171	2904	-1
AUG	751	-2575	2887	-8
SEP	117	-7241	572	-142
OCT	3	-14650	34	-1508
NOV	0	-22622	0	-4071
DEC	0	-31817	0	-7343
ANN	2244	-215241	7090	-40977

Average Annual Solar Radiation – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

City: PORTLAND
 State: ME
 WBAN No: 14764
 Lat(N): 43.65
 Long(W): 70.32
 Elev(ft): 62

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.639
 Vert Gap: 0.33

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day), Percentage Uncertainty = 11		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Global	590	880	1220	1490	1760	1930	1910	1700	1340	930	570	480	1230
	Std Dev	43	75	99	123	136	157	118	90	81	58	46	37	35
	Minimum	520	700	980	1290	1470	1630	1700	1530	1220	790	430	390	1180
	Maximum	690	1040	1420	1700	2080	2260	2120	1880	1520	1090	650	560	1320
	Diffuse	290	420	580	680	790	840	800	690	550	400	290	250	550
Clear Day	Global	760	1120	1640	2160	2520	2650	2560	2240	1760	1220	800	640	1670
NORTH	Global	180	260	350	430	540	620	580	470	360	260	180	150	370
	Diffuse	180	260	350	420	490	530	510	450	360	260	180	150	350
Clear Day	Global	160	230	310	410	580	690	630	460	330	240	160	140	360
EAST	Global	430	600	780	910	1010	1090	1070	1000	830	620	390	340	760
	Diffuse	230	330	440	510	580	620	610	540	440	320	220	190	420
Clear Day	Global	620	850	1130	1370	1500	1540	1500	1380	1160	880	620	530	1090
SOUTH	Global	1100	1240	1180	1000	900	850	890	1020	1140	1150	920	940	1030
	Diffuse	350	450	520	530	570	580	580	550	500	410	310	300	470
Clear Day	Global	1830	1980	1900	1540	1210	1050	1100	1360	1700	1880	1790	1720	1580
WEST	Global	430	610	770	880	1000	1080	1070	1000	840	610	390	340	750
	Diffuse	230	330	440	510	590	630	620	550	450	330	220	190	430
Clear Day	Global	620	850	1130	1370	1500	1540	1500	1380	1160	880	620	530	1090

Average Annual Solar Heat and Illumination – Nearest Available Site

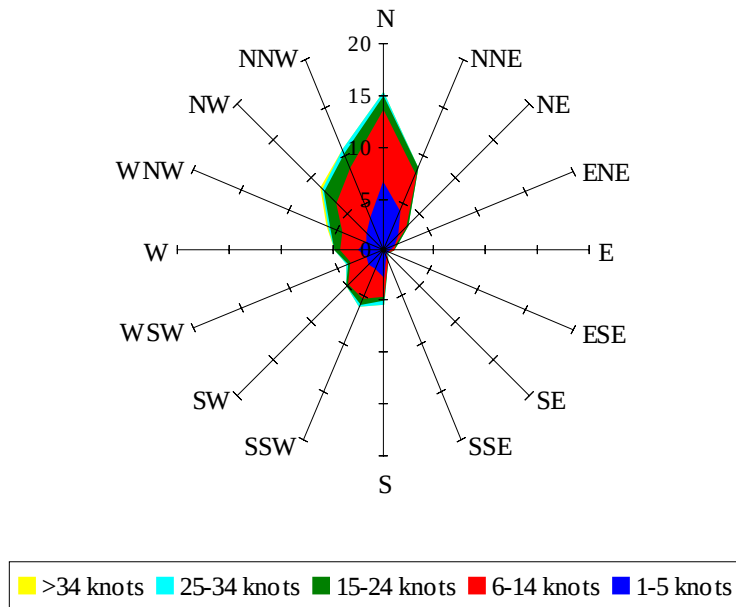
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 11		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	370	590	850	1060	1270	1400	1380	1220	950	630	370	290	870
NORTH	Unshaded	130	180	240	290	360	410	380	310	250	180	120	110	250
	Shaded	110	150	210	250	310	350	330	270	220	160	110	90	210
EAST	Unshaded	290	420	560	650	720	770	760	710	590	440	270	230	540
	Shaded	260	360	470	540	590	630	620	580	500	370	240	200	450
SOUTH	Unshaded	830	910	830	670	570	530	560	660	790	830	690	710	710
	Shaded	810	840	630	400	340	350	340	370	530	720	660	690	560
WEST	Unshaded	290	420	540	630	710	770	760	720	600	430	270	230	530
	Shaded	260	370	460	520	580	620	620	590	500	370	230	200	440

AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 11		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	44	72	76	55	18	56	87	99	90	62
	M.Cloudy	27	46	48	36	12	35	56	69	63	41
NORTH	M.Clear	10	14	14	12	6	13	16	16	16	14
	M.Cloudy	11	16	17	13	5	13	17	19	19	14
EAST	M.Clear	75	49	14	12	6	83	66	21	16	14
	M.Cloudy	29	28	17	13	5	36	39	22	19	14
SOUTH	M.Clear	50	82	87	63	20	13	41	53	44	19
	M.Cloudy	22	40	43	30	9	13	28	39	33	16
WEST	M.Clear	10	14	32	71	55	12	16	16	58	81
	M.Cloudy	11	16	23	33	18	13	17	19	40	43
M.Clear	(% hrs)	36	34	31	30	32	36	32	29	28	29

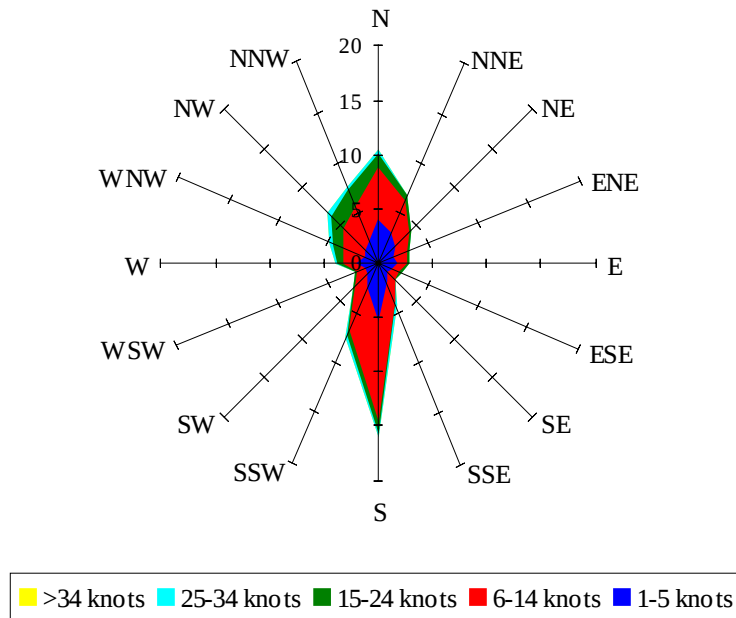
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	34	67	79	69	38	15	36	37	18	0
	M.Cloudy	20	41	53	47	24	9	23	23	12	0
NORTH	M.Clear	9	14	15	14	10	5	9	9	6	0
	M.Cloudy	8	14	17	15	9	4	9	9	5	0
EAST	M.Clear	71	63	18	14	10	38	30	9	6	0
	M.Cloudy	25	33	18	15	9	12	15	9	5	0
SOUTH	M.Clear	29	65	79	67	33	41	81	83	47	0
	M.Cloudy	14	33	46	39	17	12	30	31	15	0
WEST	M.Clear	9	14	15	58	72	5	9	27	41	0
	M.Cloudy	8	14	17	35	30	4	9	14	14	0
M.Clear	(% hrs)	42	41	38	37	40	35	36	34	34	36

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 18.89

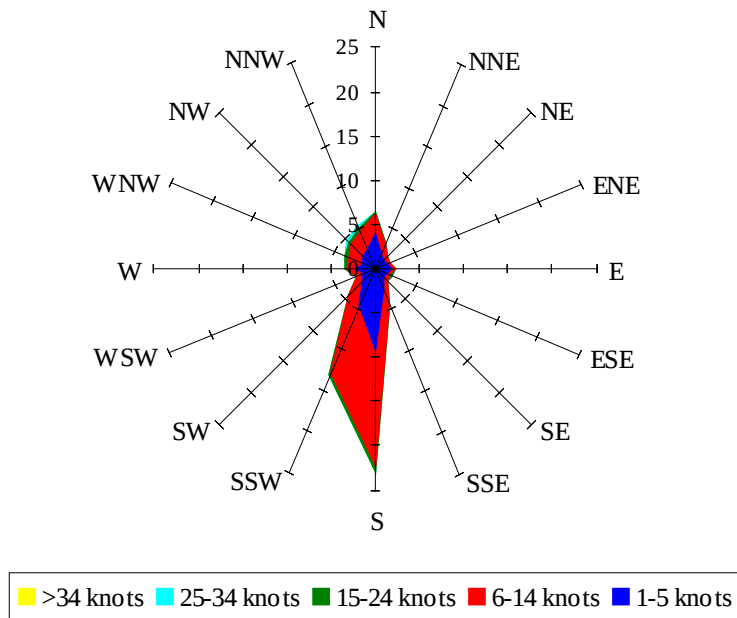
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 13.67

Wind Summary - June, July, and August

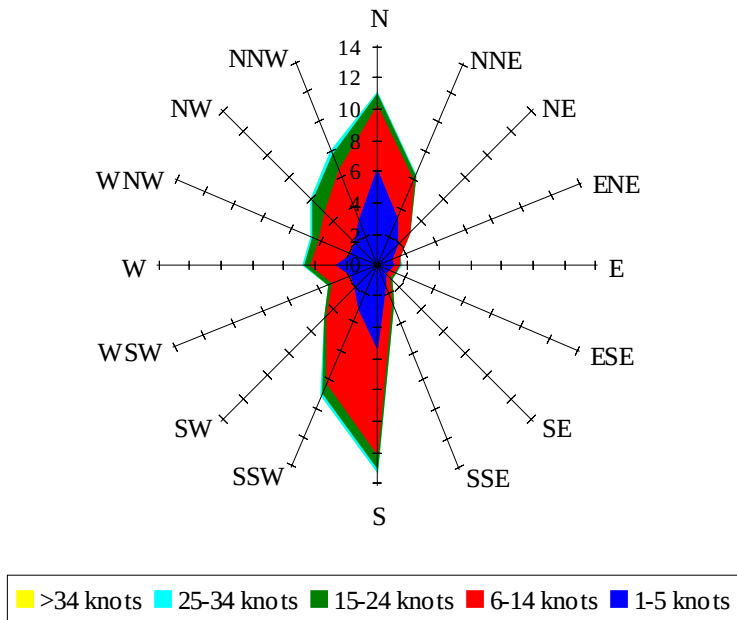
Labels of Percent Frequency on North Axis



Percent Calm = 16.88

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 18.38